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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/432,338	11/02/1999	KLAUS ZIMMERMANN	10191/1157	9914

26646 7590 10/22/2002

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EXAMINER
KEASEL, ERIC S

ART UNIT	PAPER NUMBER
3754	

DATE MAILED: 10/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

DN

Office Action Summary	Application No. 09/432,338	Applicant(s) ZIMMERMANN ET AL.	
	Examiner Eric Keasel	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide clear support for the claim terminology. 37 CFR § 1.75(d)(1) requires that terms and phrases used in the claims find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description (see MPEP 608.01(o)). Specifically, the term "a control arrangement" (claim 7) has not been defined in the specification. The term "control unit 130" does not appear to be of the same as the "control arrangement" of claim 7. Furthermore, the "control unit 130" is only a "block" with no clear structure defined (see Fig. 1).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The second step of claim 1 ("determining a switching instant...") has not been described in the specification in any detail. The only explanations of this step are on page 4 with nonenabling phrases such as "This break is usually detected by current analysis" on line 12 and "the time curve of the current is analyzed to determine the switching time" on lines 24 and 25.

The disclosure is simply inadequate for such an essential step (one of only two steps in claim 1). It appears that one of the major purposes for this invention is to provide a sufficient time window between t3 and t4 such that the switching instant can be identified. It is absolutely critical to the invention to know what this current analysis is and how long it takes in order to determine the sufficiency of the time window.

The "control arrangement" of claim 7 is also not enabling. What is the control arrangement? Claiming an apparatus that has not been described in the specification is non-enabling. The term "control unit 130" in the specification does not appear to be of the same as the "control arrangement" of claim 7. Furthermore, the "control unit 130" is only a "block" with no clear structure defined (see Fig. 1).

Applicant can not leave the entire development of the claimed invention up to others and expect to be granted a patent. The extensive experimentation and development work that would be required to make and/or use this invention is the epitome of undue experimentation (see MPEP 2164.06).

4. Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There was no "control arrangement" disclosed in the application as filed. This is a new matter rejection. The term "control unit 130" in the specification does not appear to be of the same as the "control arrangement" of claim 7.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The second step of claim 1 ("determining a switching instant...") has not been described in the specification in any detail. The only explanations of this step are on page 4 with nonenabling phrases such as "This break is usually detected by current analysis" on line 12 and "the time curve of the current is analyzed to determine the switching time" on lines 24 and 25. The disclosure is simply inadequate for such an essential step (one of only two steps in claim 1). It is vague and indefinite as to what is meant by claim 1, lines 6 and 7.

The construction of the method claims renders them indefinite. It appears that claims 2-4 (all solely dependent on claim 1) describe the iterative process of Fig. 3. However, this is no iteration of these steps in the claims as written.

Claim 5 has been amended to have a structural limitation. However, the preamble states that it should be a method claim. Claim 1 is a method claim and claim 5 has a method step recited in lines 4 and 5. What is meant by lines 2 and 3?

What is the control arrangement of claim 7? Claim 7 also appears to be missing words in lines 4-7.

7. In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lutz et al. (US Patent Number 6,017,017).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this

switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

11. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Li (US Patent Number 5,942,892).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

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12. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Smith, Jr. et al. (US Patent Number 5,738,071).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened

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13. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moyers et al. (US Patent Number 5,583,434).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

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14. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Corso et al. (US Patent Number 5,320,123).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the

invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

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15. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zimmermann (US Patent Number 5,257,014).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered

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16. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tauscher (US Patent Number 5,109,885).

Despite the fact that the claims are indefinite and non-enabling (at least to the extent of what applicant argues that the claims mean), the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 "determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value" can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don't exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered

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Response to Arguments

17. Applicant's arguments filed 2 August 2002 have been fully considered but they are not persuasive for the reasons set forth in the rejections above.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3588 for regular communications and (703) 305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

EK 21OCT02
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October 21, 2002

10-21-02
PHILIPPE DERAKSHANI
PRIMARY EXAMINER